

TRAX2 Attitude & Heading Reference System (AHRS) & Digital Compass

Accurate orientation even when GPS is not available



TRAX2 incorporates PNI's militarygrade magnetic sensors with proven sensor fusion and digital compass algorithms to provide accurate direction and orientation without the assistance of GPS.

Mission critical applications require accurate heading in any environment, moving or still, with or without GPS. Heading can be determined with a digital compass in a magnetically clean environment or with GPS when moving.

TRAX2 is the only AHRS in its class that continuously corrects for gyro drift and provides absolute heading without any additional input such as GPS. Its patented magnetic anomaly rejection algorithms automatically isolate the earth's magnetic field from other stray magnetic fields enabling accurate heading in any environment.

Features & Benefits

- Accurate heading in the most demanding environments: indoors, outdoors, under canopy, in canyons, moving or still
- Optimized SWaP-C for endless design flexibility
- AHRS mode incorporates PNI's 15 state Kalman filter with user-adjustable knobs to tune the algorithms for specific applications and conditions
- Multiple calibration methods ensure accuracy in a wide range of industrial, scientific, marine and military applications
- ITAR-free



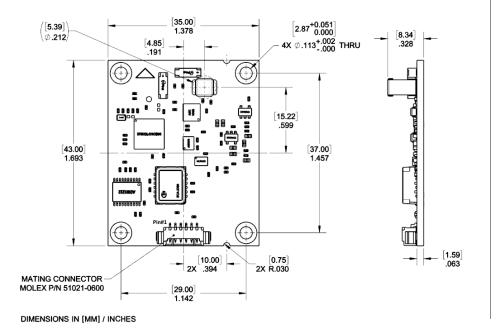






Technical Specifications*

Heading	Range	360°
	Digital Compass	0.3° rms
	AHRS	2.0° rms
	Resolution	0.1°
	Repeatability	0.05° rms
Tilt	Range	±90° of pitch, ±180° of roll
	Accuracy	0.2° rms
	Resolution	0.01°
	Repeatability	0.05° rms
Communication Interface		RS232 & TTL
Dimensions (I x w x h)	3.5 x 4.3 x 1.0 cm
Weight		7 gm
Supply Voltage (unre	gulated)	3.7 – 9 VDC
Current Draw (in AHF	RS mode)	21 mA
Current Draw (in compass mode)		17 mA
	Tilt Communication Inter Dimensions (I x w x h Weight Supply Voltage (unre Current Draw (in AHF	Digital Compass AHRS Resolution Repeatability Tilt Range Accuracy Resolution Repeatability Communication Interface Dimensions (I x w x h) Weight Supply Voltage (unregulated) Current Draw (in AHRS mode)





With over 30 years of experience, PNI is the world's foremost expert in precision location, motion tracking, and fusion of sensor systems into real-world applications.

PNI's sensors and algorithms serve as the cornerstone of successful IoT projects and other mission-critical applications where pinpoint location, accuracy, and low power consumption are essential.

Building on decades of patented sensor and algorithm development, PNI offers the industry's highestperformance geomagnetic sensor in its class, location and motion coprocessors, high-performance modules, sensor fusion algorithms, and complete sensor systems.

To learn more, please visit www.pnicorp.com.

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